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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/284,180	06/09/99	KIMURA	T 20-4546P

002292 HM12/0809  
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EXAMINER

CHEN, S

ART UNIT	PAPER NUMBER
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1633

DATE MAILED:

08/09/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/284,180

Applicant(s)  
Kimura et al.

Examiner  
Shin-Lin Ch n

Group Art Unit  
1633



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire \_\_\_\_\_ thirty days, \_\_\_\_\_ from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1-14 and 16-33 is/are pending in the applicat

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☐ Claim(s) \_\_\_\_\_ is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☒ Claims 1-14 and 16-33 are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-3, 5, 7-10 and 17, drawn to a gene encoding a semaphorin W protein containing the sequence of SEQ ID No. 3, or one or more amino acid variation within SEQ ID No. 3, and a gene comprising a DNA which hybridize with SEQ ID No. 1 or 2 under stringent condition, wherein said protein inhibit neurite outgrowth, and a vector, a host cell and a method of using said host cell to produce protein, and a pharmaceutical composition containing said gene,.

Group II, claim(s) 4, 6, 11-13, 22 and 24-27, drawn to a protein encoded by the DNA of claims 1-3 or 5, a peptide comprising a segment of at least six or more amino acid of said protein, and a pharmaceutical composition containing said protein or peptide..

Group III, claim(s) 14, 21 and 28, drawn to an antisense nucleotide or chemically modified variant thereof, against at least eight or more bases of the semaphorin gene, and a pharmaceutical composition containing said antisense nucleotide.

Group IV, claim(s) 16 and 29-31, drawn to an antibody against semaphorin protein or semaphorin peptide, and a pharmaceutical composition containing said antibody.

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Group V, claim(s) 18-20, 32 and 33, drawn to a method of screening for semaphorin W antagonist, and the semaphorin antagonist.

Group VI, claim(s) 23, drawn to a transgenic animal expressing a transgene comprising the semaphorin DNA.

Group VII, claim(s) 23, drawn to a transgenic animal containing the semaphorin gene which has been knocked out.

2. The inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups I and II share semaphorin DNAs and proteins. However, Hillier et al., 1995 discloses a polynucleotide sequence, EST Accession No. R54387, which is 85.6% identical to nucleotides 1127 to 1551 of SEQ ID No. 1. The polynucleotide sequence of EST Accession No. R54387 would be able to hybridize to the sequence of SEQ ID No. 1 and said polynucleotide sequence encodes a human collapsin protein which is part of the semaphorin family that can inhibit neurite outgrowth. Bentley et al., 1995 discloses a *Tribolium* semaphorin I protein sequence, a geneseq36 Accession No. R71384, which is 32.2% identical to SEQ ID No. 3. The semaphorin DNA, polynucleotide or peptide sequence was known in the art, therefore, groups I, II, V and VIII do not share special technical features.

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DNA, protein, antisense nucleotides, antibodies, transgenic animals and antagonist are different products for different purpose of uses. They do not share special technical features. Thus, groups I-VI do not relate to a single general inventive concept.

Groups VI and VII do not share special technical features they are drawn to different products. A transgenic animal expressing a transgene differs morphologically and physiologically from a transgenic animal containing a knockout gene. They are different animals with different phenotype and genotype. Thus, groups VI and VII do not relate to a single general inventive concept.

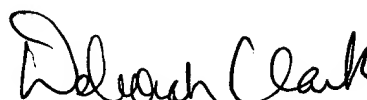
3. A telephone call was made to Mr. John Bailey on 7-24-00 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shin-Lin Chen whose telephone number is (703) 305-1678.

  
**DEBORAH J.R. CLARK**  
**PRIMARY EXAMINER**

Shin-Lin Chen, Ph.D.